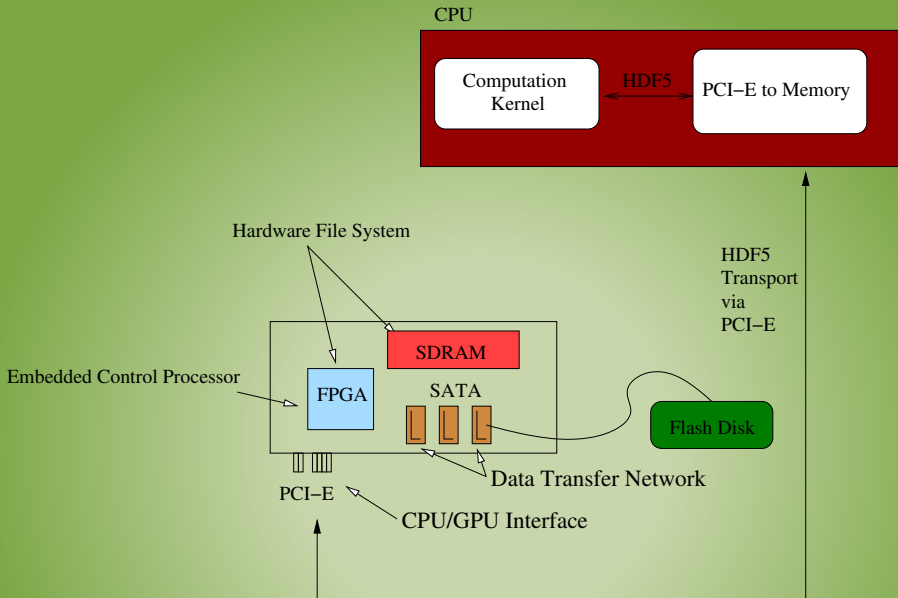


Hardware-enabled Checkpoint

- **Goal:** Reduce network traffic and decrease checkpoint time
- **Solution:** Computation streams data via HDF5 to PCIe-mounted memory store backed by solid-state drive



- **Impact:** Field-Programmable Gate Arrays are logically separate from node
 - Entire node can fail and checkpoint system will survive
 - Potentially separate power supply